The Marsh Island Trail Runners *present*

T U C A R D 2 0 2 4

The Terrifically (& Unnecessarily) Complicated Adventure Race and Duathalon

A Fundraiser for Public Land Access & Maine's Private Land Ethic
and a cross-country race that thrives on being a pain in your @$$

9:00 am, Saturday, September 21st, 2024

The Premise: This race has no course. It has a starting point, an ending point, and some as-yet-unrevealed number of waypoints in between. Your objective is to get from the starting point to all of the waypoints—in whatever order and whatever route you want—to the race finish using at least two human-powered means. So, really … <dramatic music> … *the whole world is your course*. Simple!

The Twist: You don't know all of the waypoint locations yet. And there is a fairly critical rule, lovingly referred to as the "Sparkle Pony Rule" that will be released *just before race day*. There is no way to avoid last minute course planning in the TUCARD!!!

The Devil in the Details: But, oh for the love of all that is good and holy, THE RULES!!! Why? WHY?!!! The fastest racer *could* win TUCARD … but it hasn't happened yet. Much of the "fun" of this race is playing the system, which is outlined *in nauseating detail* in the rule book below ... except for the surprise rules you wait for!

To Register: Go to https://www.marshislandtrailrunners.org/tucard. Registration includes (for those who opt in) a one-year membership to the Orono Land Trust to help protect public land access for Maine!

The Prize: 50% of the race profits are used for prizes[1]. The rest of the profits go directly to the Orono Land Trust. Really nice winners in the past have donated all or some of their prize money to the OLT … just saying.

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[1] Cash prizes are capped at $2,500, even if a million people register for the race. Mostly, ok entirely, so we don't have to get a permit with the State Gambling Control Unit. Also, high school and college athletes may be ineligible for prize money. Talk to your coaches.

Science long ago established that the legendary sparkle pony can bend time and space to her considerable will. Painful measurement last year demonstrated, **for the first time,** that the Pony also travels in multiple dimensions, some that are out of phase with our mundane existence.

This year, the course itself has been pulled into the sparkle pony's multidimensional universe, but only partially. It flickers between two realities, like a bulb about to extinguish blinking from light to dark; like a compass in a solar storm, spinning north then south. But what is dark in one realm is light in the other, the true path here is misdirection there, and what is firmly in front of you can quickly become just a whisper of what once was.

To successfully complete the course for this year's TUCARD, you must collect any three waypoints. There are, however, four to choose from, in two sets of two. Each set of waypoints sits in a different reality, out of phase from the other. Every half hour one set flickers into our reality, and its markers can be collected, but when one dimension becomes real, the other is untouchable and vice versa. Thus, there are only ever two waypoints whose markers can be collected at a given time, and which two those are changes every time the clock strikes the hour or the half hour.

The Pony is sometimes merciful, however, when the mood strikes her. At two locations on the course, she has left behind "mirror points"—places where, by gathering a token, you move through the looking glass to whichever dimension is currently out of phase, making shadow firm, dark light, and inaccessible accessible. But beware, while you can change which dimension is YOUR frame of reference, you cannot change the flickering or its timing. Everything that is out of phase for you now will be in phase for you at the end of the half hour, and vice versa. Of course, you can always switch your phase again by collecting another token from either of the two mirror points.

The 2024 Course

	°N	°W
Start Circle	44.86457	68.74731
Finish Circle	44.90058	68.72370

Waypoints

	°N	°W
p	44.864051	68.768046
b	44.908485	68.739859
n	44.855446	68.737125
u	44.898892	68.707428

Mirror Points

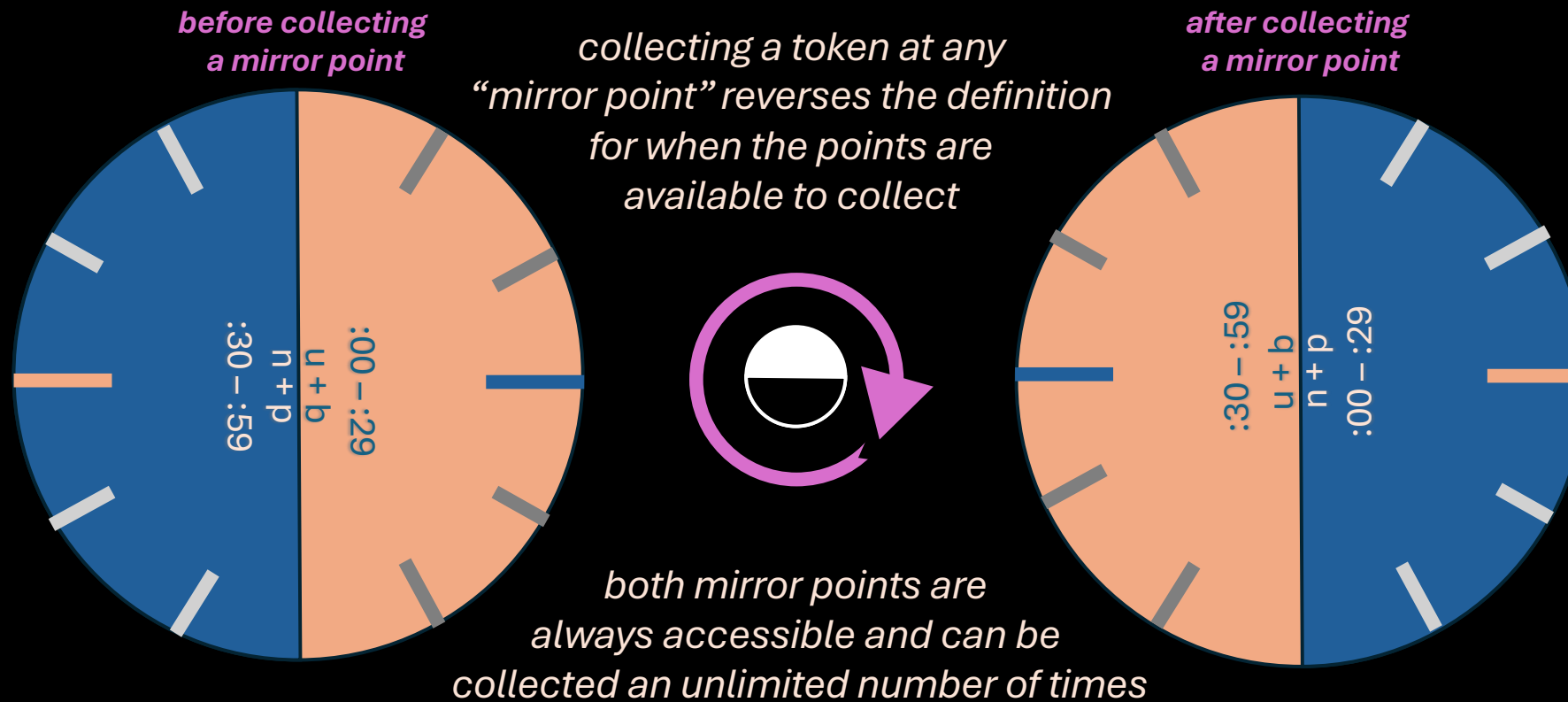|	°N	°W
W	44.850005	68.755897
M	44.908983	68.717918

Sparkle Pony Rule #1: The markers for only two waypoints are collectable at any given time, and which two changes at both the top (:00 minutes) and bottom (:30 minutes) of every hour

waypoints 'n' and 'p' can only be collected on the second half of every hour
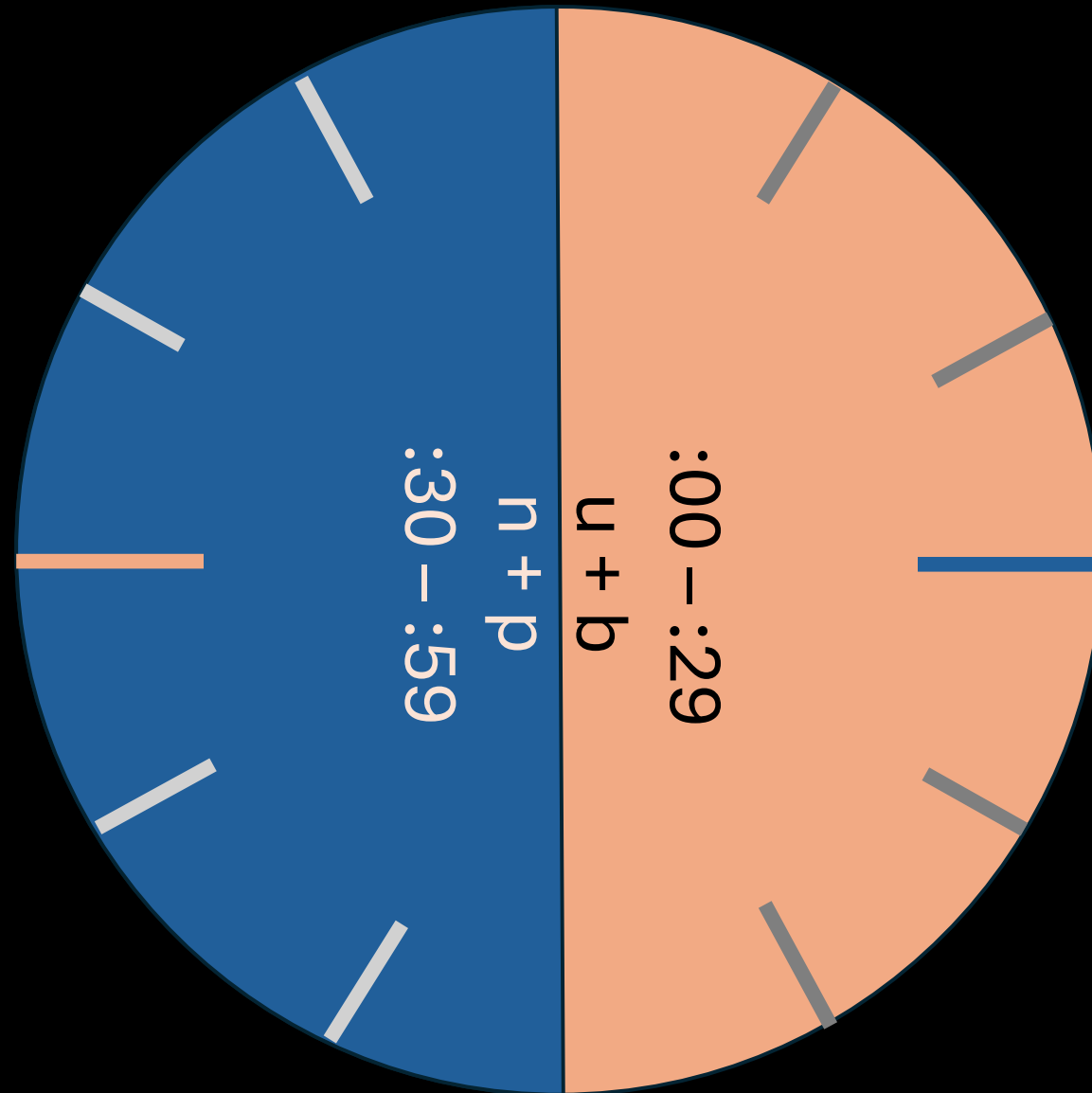
waypoints 'u' and 'b' can only be collected on the first half of every hour

:00 – :29
u + b

n + p
:30 – :59

Sparkle Pony Rule #2: By visiting any of the "Mirror Points" and collecting a token, you can reverse the clock-definition *for you*, changing which set of the waypoints are currently collectable. The availability of the waypoints, however, still changes every time the clock strikes :00 or :30

before collecting a mirror point

:00 – :29
u + b
:30 – :59
n + p

collecting a token at any "mirror point" reverses the definition for when the points are available to collect

both mirror points are always accessible and can be collected an unlimited number of times

after collecting a mirror point

:00 – :29
p + d
:30 – :59
u + n

The Terrifically and Highly Necessary TLDR Rulebook[3]

*You're busy, we get it. This single page doesn't have all the rules for TUCARD, and following just these rules won't ensure you get your best time. But if you **do** follow **just** these rules, you **probably** won't get disqualified.*

TUCARD is easy![4] *Just:*

1. Start at the start.
2. Race "segments" to find each waypoint and collect the waypoint markers.
3. A new race segment begins (and the previous one ends) any time you:
    a. Switch modes of locomotion
    b. Switch your race surface from pavement to non-pavement or vice versa
4. Note the time of day and your mode of locomotion (e.g., on foot, bike, hot air balloon) any time you switch locomotion mode or race surface, on vellum parchment with a well sharpened quill[5] or with your digital tracking app (e.g., Strava)[6]. You must use at least two modes of locomotion (i.e., The "D" in TUCARD stands for *Duathalon*).
5. Know that the scorekeepers will take the time you spend on each "segment" described by #3 and multiply it by a time adjustment to calculate your final race time. Here are the multipliers that apply to each combination of locomotion style and race surface type:

Locomotion	Surface	
	Not Pavement	*On Pavement*
Running	x 1.00	x 2.0
Bike	x 1.50	x 3.0
Boat	x 0.50	not possible
Swimming	x 0.25	not possible
Hot Air Balloon	x 0.01	not possible
Skates/Skis/Skateboard/Scoter	x 1.20	x 2.4
Portaging a Boat	x 0.50	x 1.0
Helicopter / Ebike / Moped	DQ[7]	DQ[7]

6. If you're racing as a team, designate one team member to be "on" during each segment, and only their times and locomotion mode count. *All* team members must meet up at every waypoint before moving on, and the final finish time is when the *last* team member crosses the finish circle.
7. Pay close attention to the rules released at the last minute so you don't get eaten by the Sparkle Pony.
8. Finish at the finish and turn in your waypoint markers. Even if you're Haitian and not Finnish.
9. Crack a beverage enjoy the potluck grill-out. Make fun of your adventure. Laugh a bunch. And wait at least weeks for the official results.

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[3] *For those with short attention spans, busy lives, many ferrets that need constant attention, narcolepsy, dropsy, or The Vapors.*

[4] *Like differential equations or Markov chains!*

[5] *TUCARD, its employees, and all subsidiaries do not discriminate against vampires born in the 18th century.*

[6] *You must have a digital track to get an official race score and qualify for prize money, and you* probably *need to read the Strava directions in more detail to pull that off.*

[7] Does not qualify you for a free blizzard at Dairy Queen. Does ensure you are disqualified, if that's what you're going for.

The Complete T U C A R D 2 0 2 4 Official Rulebook

The Totally & Unnecessarily Complicated Part: There are a lot of rules. Like, a *lot* of rules. Too many rules. There's even one ***super-secret surprise sparkle pony rule*** that will be revealed just before the race.

> **Here are the rules that have popped up randomly since registration opened, but are still legally binding[8]:**
>
> A. **NEW LOCOMOTION CATEGORY:** "Soccer it to me" — dribbling a soccer ball gives you a locomotion modifier of 0.75
> B. **FAST FOOD BONUS:** Bring a dish to share[9] at the potluck grill-out after the race and get 5 minutes subtracted from your final race time! Grills and beverages will be provided, everything else is potluck. Go to this list to see what others are planning on bringing, or make sure you claim potato salad first, because it's the only recipe you know: https://docs.google.com/spreadsheets/d/1kTYWfkg1hMKi65C5vti2Rms0GqLuDw43WSgb4kBx-kk/edit?usp=sharing
> C. **WASH IT ALL AWAY:** The first 15 minutes spent swimming (not wading, not slightly moist, but your entire body is suspended in water) have a time modifier of x(-2). Any minutes spent swimming after the first fifteen have the regular swimming modifier of x 0.25.   Thus, each of the first 15 minutes you spend swimming takes ***two minutes away*** from your final race time.

And here are a few rules that have been around awhile but still apply
(*For race veterans, rules marked with a star are new or changed this year relative to last year*):

1. **You can use any means of locomotion that is human powered**. No engines, no fly wheels, no batteries, no dog sleds. Sails and pedals and paddles and feet are allowed.

2. **You must use *at least two* different modes of transport** (see: Duathalon). You can use more.

3. **Markers prove you completed the course**. At each waypoint you will find a marker with your bib number on it. Hand them all in at the finish to prove you made it to all of the waypoints.

4. **There is a "pavement penalty"** that you should definitely keep in mind as you plan your route. All of the time you spend on pavement, or running along a paved road (even if you're on the berm) counts double. That means that if you run for five minutes along a paved road, your race time goes up by ten minutes. Ouch. Because we check your route for official scorekeeping via your GPS track, "pavement" is defined as anywhere within 10 feet of pavement as shown in the Google Maps Satellite View on race day. That means no planter hopping across parking lots to avoid the penalty.

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[8] Except for the fact that they are in no way legally binding
[9] Must be an appropriate dish to share that demonstrates you thought about it ahead of time. Your racing gels or water bottle backwash DOES NOT COUNT. If you show up with a bag of chips, it counts just like it would for a regular potluck, you get credit, but also a lot of barely disguised judgement.

5. **Because the chicken had her reasons.** If you are only on pavement for 40 feet or less (i.e., the width of a typical road crossing) you don't have to count the pavement penalty. Don't abuse this please. If you cross a road, then go into the woods for three feet and then go back to the road for 40 feet and keep doing that again and again to avoid the pavement penalty (or anything similarly nefarious), the race organizers will be annoyed and just disqualify you for being a pain in the butt.

6. **There are time adjustments based on your means of locomotion**.
   a. On foot = time x 1.0 (i.e., regular time)
   b. On bike = time x 1.5
      (e.g., 1 min biking adds 1.5 min to final time)
   c. In a boat = x 0.50
   d. Swimming = x 0.25
   e. In a hot air balloon = time x 0.01
      (mostly I just want to see someone try this)
   f. On skates / skis / skateboard / scoter = x 1.2
   g. Portaging = time x 0.5*
   ⭐h. Dribbling a soccer ball = x 0.75
   i. In a helicopter = disqualified (see rule # 1)

   ⭐*Boat must be seaworthy enough during the portage[10] to be able to carry you across the Stillwater River at the UMaine Steam Plant; Team carries are allowed, but the portage locomotion mode must be <u>on foot over land</u>—no carrying boats on bikes or boats on other boats to get a compound bonus, you tricky tricksters! (see rule#8)*

   If you have some movement method you want to use, and it's not listed here, just let us know. We'll figure out an adjustment for you, or we'll tell you it's not allowed because we can't be bothered to figure out one.

7. **Pavement and locomotion adjustments compound.**
   So, if you bike on a paved road for a minute, you get three minutes added to your running time (because 1.0 minute x 2.0 pavement penalty x 1.5 bike adjustment = 3.0 minutes added to your race time). Likewise, if you paddle your canoe up Main Street for 10 minutes, you get 10 minutes added to your race time (because 10 minutes x 2.0 pavement penalty x 0.50 boat adjustment = 10 minutes). Which is a lot better than the 20 minutes it would cost you for *running* up Main Street, so that's a really great way to erase the pavement penalty!

8. **Locomotion adjustments do not compound with each other**. Each mode of locomotion has a single adjustment, and if you're on pavement, it doubles. That's it. So, if you are roller skating on your paddle board while your teammate carries the board, that does *not* mean your adjustment is 1.25 for skating x 0.5 for boating x 0.5 for portaging. This race is enough of a circus without *that* insanity.

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[10] This means that if you are portaging a pack raft, it has to be *inflated*, and if you are portaging a 12 foot, aluminum john boat, the drainage plug has to be *in*.

9. **Teams are encouraged.** Sometimes there are special team rules that get released later. Sometimes there aren't. Teams who race together always seem to have more fun though. Fun is encouraged. All team members must start the race at the starting circle, and teams may not leave any waypoint until *all* of their members have arrived. This means that dividing and conquering the waypoints is a no-no. That being said, it's easier to paddle your canoe down Main Street with a friend. Final team times are determined by the *last* team member to cross the finish circle.

10. **Designated Driver.** Teams must designate one member as the active racer during each segment. The mode of transport, route of travel, and time adjustments only apply to the designated team member during that segment. All the rules still apply to the designated racer, but the non-active racers are off the hook for that segment (break out the dog sleds!). All team members must still reach all waypoints together (Rule #9), but, for example, if the designated racer is running, and the other teammates are all on bikes pulled by robo-dogs with engines, the team is not only not disqualified, there is also no bike penalty for that segment. Also, one team member may be racing while the others are engaged with arranging future logistical hurdles (e.g., napping, clearing the course of sparkle ponies), so long as everyone meets up again at the next waypoint before proceeding on with the race.

11. **Wind beneath your pedal-powered wings.** Racers are allowed to have an (unregistered) support team. Not just for cheering, either. Non-racers can pace or assist with any navigation or logistics (e.g., bringing boats or bikes between segments) so long as the racer's speed isn't directly impacted during the segment. So, for example, no piggybacks, pushing, or holding up one end of the portaged boat.

12. **Keep track of your own route segments.** Because of the complicated timing rules, we require everyone (or every team) to fill out a route worksheet (See APPENDIX A) that we'll use to calculate your final race time. Your total route will be made up of "segments". Each segment of your route will end and a new one will begin any time that you:

a. Switch your mode of locomotion (e.g., going from biking to running or sailing to paragliding)

b. Move onto or off of pavement.

For each segment, a line on the worksheet will record the start time, the type of locomotion used, and whether or not the segment was on pavement. An example worksheet is attached to the end of the rule book as APPENDIX A to give you an idea of what it might look like. The precise format may change depending on what the new race rules are for this year, however. So, as in most things TUCARD, don't get too comfortable with your comfort level. Regardless, the whole bookkeeping exercise will probably be easiest if you use a running app (e.g., Strava) and follow those instructions listed in APPENDIX B, and then you can just fill out the worksheet once you finish.

13. **Final race times will only be official if there is digital proof.** At the end of the race, we'll take your worksheet and start working up the scoring. Racers who have a digital track record and the starting times for each segment (e.g., on a running app or with a GPS unit) will be eligible for an "official" score and be in the running for the cash prize. We'll calculate an unofficial race time for anyone who hands in a worksheet, but you can't win unless your time is *official*, and your time is only official if you can digitally prove where you were during your segments! **NOTE:** this means that if you use a running app to track your route segments, and you forget to hit start at any point, or the app crashes, or your battery dies, or you are attacked by Russian hackers, you cannot win this race. So, if you are a competitive soul, maybe bring two devices. Unless you feel lucky, punk. For instructions on how to use Strava to record an official time (which is highly encouraged), see APPENDIX B.

    Please note that starting one segment and starting a new one in some exercise apps takes time (not if you follow the Strava instructions in APPENDIX B, however!), but time adjustments are applied to the elapsed time between the start of one segment and the *start* of the subsequent segment (or your race finish time, for the last segment). Thus, any time between the stop of one segment and the start of the next segment will receive the time adjustment of the *previous* segment.

14. **Race like a confused squirrel.** The route is approximately 2.75 miles as the crow flies from start to finish, but who wants to race like a crow? That's boring.[11] It will vary considerably year to year, but the *winning* routes have generally been between 8 and 10 miles in length. And of course there is always some truly adventurous soul competing for the "lost dog" award. The Lost-est Dog ever in TUCARD history traveled over 17 miles, which was *six times* the distance of the crow route that year. Can you beat that? Bring snacks, if you're going for it.

15. **Winner-winner-chicken-dinner.** The winners (fastest official time in each race class to complete the course after all penalties and adjustments) split 50% of the registration fees after we cover our costs. The rest goes to the Orono Land Trust to support public land access and to help them provide us all with an adventure course all year. Monetary prizes will be awarded to winners of the following race categories that have at least three participants: Open Gender, Female, Male, and Team.

16. **Afterglow.** There will be a ⭐pot-luck BBQ[12] at the end. Beverages and grills will be provided. Bring a main or side dish if you're so inclined (and get a time bonus!!). And stories and laughter. And no expectations for race results, because it's going to take us a million years to figure out who won.

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[11] This rule is in no way a slam on Crow Athletics or Gary Allen, who is a darling gem of the Maine race community. But this race is going to be more fun than running on the Golden Road in December with a below-zero wind chill, and more entertaining than running around and around and around in circles on a tiny island for 50 kilometers. Just saying. It won't, however, be as potentially life threatening as running the New York Marathon during Superstorm Sandy. He's got us there.

[12] New Englanders will recognize this term, "BBQ", does not guarantee there will be any actual BBQ sauce, just meat and veggie-based meat-imitations cooked on hot metal. Southerners will be confused. Missourians will be pissed that BBQ was just assigned to "the South". Lebanese will laugh heartily at the silly Americans (did you read this far into the rules, Diba?). But it's a potluck, so you can really define it however you'd like to if you bring it.

T U C A R D 2 0 1 7

The Terrifically (and Unnecessarily) Complicated Scoring Sheet EXAMPLE

Name: *Brumbaugh Fergusson the Faint-hearted*

Starting Time: *09:00:00*
Finish Time (unofficial):   *11:09:51*

Digital platform: *Strava*
Username (if applicable):   *"@F8-Hahted"*

RACE SEGMENTS

Starting time (hh:mm:ss)	Pavement? (Y/N)	Locomotion Type?	Digital Track? (Y/N)
09:00:00	*N*	*Running*	*Y*
09:25:01	*Y*	*Biking*	*Y*
09:31:21	*N*	*Swimming*	*Y*
09:37:12	*N*	*Running*	*Y*
10:47:22	*Y*	*Dancing w/the Pony*	*Y*
10:55:56	*N*	*Running*	*Y*
11:00:56	*N*	*Three-legged Race*	*Y*
In this example, Sir Fergusson took off running on a dirt track, then jumped on a road bike to dash to the river, which he swam across to another trail. He then ran a series of different dirt trails for 70 min 10 sec, ran down a paved road for 8 min 34 secs following the insane Sparkle Pony Rule for that year, and then ran another five minutes on one last trail before meeting up with his logistics partner to conduct a 3-legged race (a special locomotion mode for that year) over the finish line.			

You can either 1) hand in this scoresheet at the finish line or 2) email it to *MarshIslandTrailRunners@gmail.com* before 11:59 pm on the day of the race. Official digital tracks must also be received by that deadline to qualify for an official score and the race prizes. If you use Strava and follow the instructions provided, you just have to hand in this scoresheet and upload your data to Strava by the deadline.

APPENDIX B

So you hate pen and paper? Hate stopping your race to write things down? Are you one of those people who only owns an electric can-opener? One with Bluetooth and is internet enabled? We get it. Well, no, no we don't. But we'll accommodate it.

Here's one suggestion of how to keep track of your TUCARD details on the fly and get an official score time and potentially qualify for a race prize.

What to do before race day:

1. If you are not already a user, download Strava:
   for your iPhone - https://apps.apple.com/us/app/strava-run-ride-swim/id426826309
   for your Android phone - https://play.google.com/store/apps/details?id=com.strava

2. Join the Marsh Island Trail Runners Club by going to our Strava Club page
   https://www.strava.com/clubs/mitr

3. RSVP to the TUCARD by clicking on "I'm in"

   If you have your privacy permissions (https://www.strava.com/settings/privacy) set so that the setting for Activities is "everyone", then this is all you have to do for us to see what you record on Strava for the race. https://www.strava.com/clubs/232370/group_events/1573566

4. If you have your privacy permissions set so that the setting for Activities is "followers", then you need to follow "Brian Olsen" (https://www.strava.com/athletes/10631219), our official scorekeeper, so he can see your activities. Actually, it will be easier for him to find your stuff if you follow him on Strava regardless. He'll probably follow you back. He's friendly like that. You can delete him after the race, if you want. Strava won't tattle on you, so he won't cry in his beer that night.

5. Consider turning your "flyby" viewing setting in your privacy permissions (https://www.strava.com/settings/privacy) to "everyone", because they are so cool to watch for this race. If you've never seen flybys, if you go to the web version of Strava, you can see an animated map with all the other Strava racers and watch the route they took relative to yours for the entire race. We get an unnatural amount of enjoyment watching people get lost.

What to do on race day:

1. Make sure your settings have auto-pause turned off for both biking and running (we can figure out the scoring if you don't do this, but it will be easier if you do).

2. Use a single Strava activity for the entire race and ALL of your segments. The Strava track is a record of where you were when, so we can proof your route and pavement coverage.

3. Then you have two options for recording the start times for each of your segments.

   If you are using Strava on your phone:

   a. Make one Strava recording of your entire race route from beginning to end with all its modes of locomotion and various mixes of pavement and water and trails.
   b. Take a screenshot of your phone every time you start a new segment. This will record the time.
   c. Record on your *paper scoresheet* the segment start times from your screen shots as well as your mode of locomotion and whether or not you were on pavement for that segment.

d. Hand in or email your scoresheet (as well as uploading your Strava data in a way that we can see) for your official score.

If you are using a gps watch[13] that uploads to Strava:

a. Make one recording of your entire race route from beginning to end with all its modes of locomotion and various mixes of pavement and water and trails.
b. Press your lap button every time you start a new segment to record the time.
c. Upload your watch data to Strava.
d. Record on your *paper scoresheet* the segment start times as well as your mode of locomotion and whether or not you were on pavement for that segment. If you are using Strava to calculate the segment starts, the app records "splits" both from watch lap times *and* whenever you travel a mile since your last lap start. To calculate a segment start longer than a mile will thus require some simple addition. So for instance, if you ran a segment that was 1.25 miles long before hitting the lap button, Strava will show you the time spent on the first mile and the time spent on the remaining 0.25 of that segment. You'll need to add those two together. Your watch may have an easier way to do this outside of Strava, but this is how we'll proof your math from your uploaded Strava data.
e. Hand in or email your scoresheet (as well as uploading your Strava data in a way that we can see) for your official score.

What about Strava "quirks"?

Figure 1. *Wearing multiple watches gives you style points. Running in a sweatshirt dress or with a saxophone and a porkpie hat does as well.*

Ok, Strava isn't perfect. No exercise app is. Rarely, Strava even totally bonks and draws straight lines between points multiple miles away from each other, although this is often related to the "auto-pause" option, which you should not have on for this race (please)[14]. But! If you are worried about these weird Strava quirks, which for the record *will definitely invalidate your official scoring*, then please bring two means of keeping track of your route. If you wear four or five GPS swatches up your arm, like a gnarly 80's radster, you will receive extra style points. Style points don't help your race times, but they make you feel cooler (see Fig. 1).

What Strava does do *often* is give you a slightly different pace or distance depending on what phone you have. The GPS algorithm for any device is always an estimate, as it draws straight lines between points with some wiggle for extra measure. For instance, if you run as a team and you all record in Strava, chances are you'll all end up with slightly different distances and paces calculated. Luckily, for this race, we don't care about distance. Check out the score card (APPENDIX A). Did we even ask about distance? NO! We care about *time* and *locomotion mode* and *route* (because of pavement). Strava will do that consistently, no matter how

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[13] Or at least all of the watches we are familiar with. If you are planning on using a watch, you should probably double check that these instructions work for your watch before race day.

[14] In our experience it's more often related to jumping in the car after a run and forgetting to hit stop. Stupidity is not an excuse for Strava errors and will invalidate your official timing.

awful your phone is. Well, if it's a flip phone we might have issues, not the least of which is that you can't download the app.[15] Because of this scoring method, all teammates should have the same data if they hit start and stop at the same time (to be clear: we only need one official digital route and scoresheet from a team, this is just an illustration of how superior our scorekeeping rules are over Strava's algorithm).

We recommend using Strava because we think it will be easier[16], but you are welcome to use some other way to record your digital track to get an official finish score. The point is to be able to prove that you were only on pavement when you said you were and that you changed locomotion modes at the times you said you did on the scoresheet. If your favorite digital method lets you show us that, you are probably good to go, but ask us if you have any doubts. And if you could give two shakes of a lamb's tail about an official score, than just give us the paper. We'll still tell you where you placed. Works for us. You just can't win any money. You'll know you're the real winner.

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[15] You will not receive style points for having a flip phone.
[16] And because we are angling for corporate sponsorship and the scorekeeper has tied his self-esteem to his Strava follower number.